UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/471,877	12/23/1999	ADRIAN SFARTI	0100.9910145	8063

29153   7590   04/12/2006

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EXAMINER
PAN, DANIEL H

ART UNIT	PAPER NUMBER
2183	

DATE MAILED: 04/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)
	09/471,877	SFARTI ET AL.
Office Action Summary	Examiner	Art Unit	
	Daniel Pan	2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 January 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-33</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>7-13 and 20-27</u> is/are allowed.

6)☒ Claim(s) <u>1-6, 14, 18, 19 and 28-33</u> is/are rejected.

7)☒ Claim(s) <u>15-17</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

1.   Claims 1-4, 14,18,19, 28-31 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Wandler et al. (5,991,833) in view of Sakugawa (6,684,278) in view

of Klein (5,974,239) .

2.   As to newly amended claim 1, the newly amended features in a) is directed to

the same features set forth in original paragraph a), therefore, the newly amended

features are directed to the correction in language format, and doe not affect the

original scope.

3.   Similarly, the newly inserted feature, now combined with the buffering in the

north bridge the memory access from the south bridge in claim 2 was already presented

in a previous version.

4.   Claims 5,6, 32,33 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Wandler et al. (5,991 ,833) in view of Sakugawa et al. (6,684,278) in view of Klein

(5,974,239) as applied to claim 1 and clam 28 above, and further in view of Onishi et al.

(5,845,329).

5.   The rejections are maintained and incorporated by reference the last Office

action.

6.   The response filed on 01/09/09/06 has been fully considered but not persuasive.

7.   In the remarks, applicant argued that :

a) applicant's methods allow both the central processing unit and the memory to operate at their normal , specified rates without being slowed down by other components of the system. ;

b) applicant's claims are not directed to cycle based bandwidth diversity;

c) there is no internal bus between the central processing unit and the Northbridge in Klein such as a bus protocol that is native bus protocol of the central processing unit since Klein had separate circuits for central processing unit and the Northbridge ;

d) Wandler taught separate south bridge from integrated Northbridge;

e) Wandler's computer system 10 is a computer system with display , not a single substrate.

8.   As to a) above, applicant is reminded that unclaimed features cannot be used to overcome the prior art (e.g. see CCPA In re Lundenberg & Zuschlag, 113, USPQ 530, 534 (1957)). For example, nowhere does applicant claim recite that both the central processing unit and the memory to operate at their normal , specified rates without being slowed down by other components, or the like.

9.   As to b) , applicant already stated that the invention is directed to increase the efficient use , maximum use of a central processing unit (see page 11, lines 11-14), therefore, one or ordinary skill in the art should be able to recognize the operating conditions of the central processing unit, such as interface with memory, had to be overcome in order to maintain the maximum and efficient use of the central processor

unless the central processing could stand alone without the use of memory. In other

words, cycle based memory bandwidth could not be ignored if the central processor

maximum use were to be desired.

10.   As to c), the facto that the central processing unit and the Northbridge are

separate circuits does not necessarily mean that there was no internal bus in between.

Klein taught his system controller 106 (the north bridge) had a built-in CPU interface

(see fig.5). Therefore, the built-in CPU interface was an internal bus which should have

protocol, or the like, adapted to the CPU in order to transfer information with CPU,

otherwise, the CPU could not be recognized by the north bridge.

11.   As to d),e), see the PCI bus for integrating south bridge   with CPU and north

bridge (col.6, lines 5-7). Wandle taught his personal computer system could be

implemented with other bus architecture as desired (see col.7, lines 8-20). Therefore,

integrating the south bridge on to a substrate with CPU and north bridge was

applicable, and since Wandler already taught to minimize the time duration between

CPU and the PCI bus (PCI connected to south bridge) , one of ordinary skill in the art

should be able to recognize the integration of all the system components, including the

south bridge, in order to reduce the time interface between the CPU and the PCI bus.

12.   Claims 7-13, 20-27 would be allowable over the art of record for specifically

showing the combined features of the functional elements of the instruction module,

cache modules , decoder and phase locked loop and the memory access request

received from the central processing unit at operational rate of the central processing

unit and the memory access request received from the request buffer at the memory

rate, the memory access request when information relating to executing one of the

operational instructions was not stored in the data module or the instruction module and

the north bridge for the operating rate of the central processing unit and for the

operating rate of the memory.

13.   Claims 15-17 are objected for being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims. None of the prior art of record further teaches

the combined elements of the data module, instruction module, phase locked loop, the

request issued at the operating rate of the CPU, the memory access request when

information relating to executing one of the operational instructions was not stored in the

data module or the instruction module and the north bridge at the operating rate of

central processing unit.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dan Pan whose telephone number is 703 305 9696, or

the new number 571 272 4172. The examiner can normally be reached on M-F from

8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chan, can be reached on 703 305 9712, or the new number 571 272 4162.

The fax phone number for the organization where this application or proceeding is

assigned is 703 306 5404.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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